

Claims

1. Aluminium alloy for diecasting of components with high elongation in the cast state with
8.5 to 10.5 w.% silicon
0.3 to 0.8 w.% manganese
max 0.06 w.% magnesium
max 0.15 w.% iron
max 0.03 w.% copper
max 0.10 w.% zinc
max 0.15 w.% titanium
0.05 to 0.5 w.% molybdenum
30 to 300 ppm strontium or 5 to 30 ppm sodium and/or 1 to 30 ppm calcium for permanent refinement,

optionally also

0.05 to 0.3 w.% zirconium

gallium phosphide and/or indium phosphide in a quantity corresponding to 1 to 250 ppm phosphorus for grain refinement

titanium and boron added by way of an aluminium master alloy with 1 to 2 w.% Ti and 1 to 2 w.% B for grain refinement,

and as the remainder aluminium and unavoidable impurities.

2. Aluminium alloy according to claim 1, characterised by 50 to 150 ppm strontium.

3. Aluminium alloy according to claim 1, characterised by max 0.05 w.% magnesium.

4. Aluminium alloy according to claim 1, characterised by max 0.10 to 0.20 w.% zirconium.

5. Aluminium alloy according to claim 1, characterised by 0.08 to 0.25 w.% molybdenum.
6. Aluminium alloy according to claim 1, characterised by gallium phosphide and/or indium phosphide in a quantity corresponding to 1 to 30 ppm phosphorus.
7. Aluminium alloy according to claim 1, characterised by an aluminium master alloy with 1.3 to 1.8 w.% titanium and 1.3 to 1.8 w.% boron and a titanium/boron weight ratio between 0.8 and 1.2.
8. Aluminium alloy according to claim 1, characterised by 0.05 to 0.5 w.% aluminium master alloy.
9. Use of an aluminium alloy according to claim 1 for diecasting of safety components in car manufacture.